

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application of

Applicants : Zachman et al.

Serial No. : 10/695,200

Filed : October 28, 2003

Title : **TRANSDUCER ARRANGEMENT**

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RESPONSE TO NOTIFICATION OF NON-COMPLIANT BRIEF

This is a response to a Notification of Non-Compliant Brief, mailed September 26, 2007 in the above identified application. The Notification indicated that the Brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number or paragraph number and/or drawings, if any, by reference characters. A separate footnote indicated that the "claimed invention is not mapped to independent claims 1, 3, 9, 13 and 14, which shall refer to the specification by page and line number and to the drawings, if any." We note that this in reference to the summary provided, and thus notice is taken of MPEP ¶1205.03 which states: "When the Office holds the brief to be defective solely due to appellant's failure to provide a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v), an entire new brief need not, and should not, be filed. Rather, a paper providing a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v) will suffice." Accordingly, this paper, rather than an entirely new brief, is being submitted to expand upon and supplement the SUMMARY OF CLAIMED SUBJECT MATTER section of the previously filed Appeal Brief.

The following "maps" independent claims 1, 3, 9, and 13 on appeal to the specification by page and line number and to the drawings by reference number, as requested in the Notification of Non-Compliant Appeal Brief. Please note, claim 14 depends from claim 13. This mapping is provided for the assistance of the Board and is not intended to limit the scope of the instant claims.

1. (Original) A method for controlling movement of individual hydraulically moveable ends of a screed head [ends 520, 521 and screed head 522 as shown by FIG. 5, and as described at page 18, lines 7-9] carried by a machine [concrete screed 504 as shown by FIG. 5 and described at page 18, line 2] so as to maintain a selected elevational position between each end of the screed head and an elevational reference [reference laser beam 512 as shown by FIG. 5, and described at page 18, line 17-18] in a concrete paving application, comprising:

providing a control system [control system 16 as shown by FIG. 1, and as described at page 10, lines 13-17; control circuit in box 516 as shown by FIG. 5, and as described at page 19, lines 8-18] controlling the hydraulically moveable ends of the screed head;

providing a pair of laser receivers [elevation receivers 514, 515 as shown by FIG. 5, and as described at page 18, line 5] and a gravity-based cross slope sensor [sensor 530 as depicted by FIGS. 5 and 7, and as described at page 19, line 19-page 20, line 1] to the screed head and in communication [as described at page 19, lines 8-18; also electrical lines 38 as shown by FIG. 1, and as described at page 10, lines 8-9] with the control system;

setting the pair of laser receivers in an appropriate dead band with the elevational reference [laser beam 12 and step 554 as shown by FIGS. 5 and 9, respectively, and as described at page 18, lines 11-20, page 22, lines 11-12]; and

using the gravity-based cross slope sensor when one of the laser receivers loses reception of the elevational reference to provide a relative measurement of the interrupted laser receiver which, when coupled with an absolute measurement of the uninterrupted laser receiver, provides an estimate of the absolute position of the interrupted laser receiver, the control system using the provided absolute and estimated absolute positions to control the elevation of the hydraulically moveable ends of the screed head [described at page 19, lines 1-18, and as shown by FIG. 9, and described at page 22, lines 12- page 23, line 3].

3. (Original) A control system [control system 16 as shown by FIG. 1, and as described at page 10, lines 13-17] for controlling movement of individual hydraulically moveable ends of a screed head [ends 520, 521 and screed head 522 as shown by FIG. 5, and as described at page 18, lines 7-9] carried by a boom [boom arm 523 as shown by FIG. 5, and described at page 18, line 10] and of a machine [concrete screed 504 as shown by FIG. 5 and described at page 18, line 2] so as to maintain a selected elevational position between each end of the screed head and a reference [laser beam 512 as shown by FIG. 5, and as described at page 18, lines 17-18] in a concrete paving application as the screed head is moved toward the machine, comprising:

an elevation receiver [elevation receiver 514 as shown by FIG. 5, and as described at page 18, line 5], mounted on a first end [end 520 as shown by FIG. 5, and as described at page 18, lines 7-9] of the screed head, providing a first signal indicating the position of the first end of the screed head in relation to the reference [described at page 18, lines 18-20];

an elevation receiver [elevation receivers 515 as shown by FIG. 5, and as described at page 18, line 5], mounted on a second end [end 521 as shown by FIG. 5, and as described at page 18, lines 7-9] of the screed head, providing a second signal indicating the position of the second end of the screed head in relation to the reference [described at page 18, lines 18-20];

a sensor [sensor 530 as depicted by FIG. 5, and as described at page 19, line 4-7], mounted on the screed head, for sensing slope of the screed head along its length from the first end to the second end and providing a third signal indicating said slope; and

a control circuit [control circuit in box 516 as shown by FIG. 5, and as described at page 19, lines 8-18] responsive to the elevation receivers and to the sensor, for controlling the hydraulically moveable ends of the screed head using the first and second signals from the elevation receivers when the first and second signals are available, and for controlling the hydraulically movable ends of the screed head using the third signal from the sensor and one of the first and second signals from the elevation receivers when the other of the first and second signals is not available.

9. (Original) A control system [control system 16 as shown by FIG. 1, and as described at page 10, lines 13-17] for controlling movement of individual hydraulically moveable ends [ends 20, 21, 520, 521 as shown by FIGS. 1 and 5, respectively, and as described at page 9, lines 4-5, and

page 18, lines 7-9, respectively] of an elongated tool [tool 22, 64, 280, 522 as shown by FIGS. 1, 3, 4, and 5, respectively, and as described at page 17, lines 8 and page 18, lines 7-9] so as to maintain a selected elevational position between each end of the tool and a reference [laser beam 512 as shown by FIG. 5, and as described at page 18, lines 17-18], comprising:

an elevation receiver[elevation receiver 514 as shown by FIG. 5, and as described at page 18, line 5], mounted on a first end [end 520 as shown by FIG. 5, and as described at page 18, lines 7-9] of the tool, providing a first signal indicating the position of the first end of the tool in relation to the reference [described at page 18, lines 18-20];

an elevation receiver [elevation receivers 515 as shown by FIG. 5, and as described at page 18, line 5], mounted on a second end of the tool[end 521 as shown by FIG. 5, and as described at page 18, lines 7-9], providing a second signal indicating the position of the second end of the tool in relation to the reference [described at page 18, lines 18-20];

a sensor[sensor 530 as depicted by FIG. 5, and as described at page 19, line 4-7], mounted on the tool, for sensing slope of the tool along its length from the first end to the second end and providing a third signal indicating said slope; and

a control circuit [control circuit in box 516 as shown by FIG. 5, and as described at page 19, lines 8-18], responsive to the elevation receivers and to the sensor, for controlling the hydraulically moveable ends of the tool using the first and second signals from the elevation receivers when the first and second signals are available, and for controlling the hydraulically movable ends of the tool using the third signal from the sensor and one of the first and second signals from the elevation receivers when the other of the first and second signals is not available.

13. (Original) A method of controlling the elevational position of hydraulically moveable ends of a tool [ends 520, 521 and screed head 522 as shown by FIG. 5, and as described at page 18, lines 7-9] in relation to a reference [reference laser beam 512 as shown by FIG. 5, and described at page 18, line 17-18] detected by elevation receivers [elevation receivers 514, 515 as shown by FIG. 5, and as described at page 18, lines 4-5] attached to the ends of the tool, said method comprising:

(a) selecting a desired elevational position of the tool with respect to the reference [laser beam 12 and step 554 shown by FIGS. 5 and 9, respectively, and as described at page 18, lines 11-20, page 22, lines 11-12] ;

(b) sensing with the elevation receivers the position of the ends of the tool in relation to the reference [step 556 shown by FIG. 9, and as described at page 22, lines 12-13];

(c) sensing slope of the tool along its length from one end to the other [step 558, step 560 shown by FIG. 9, and as described at page 22, line 14]; and

(d) controlling the elevational positions of the ends of the tool using the sensed positions of the ends of the tool in relation to the reference when such positions are both known, and when reception of at least one of the elevation receivers of the reference is interrupted, controlling the elevational positions of the ends of the tool using the sensed position of one of the ends of the tool and the sensed orientation of the tool along its length from one end to the other when such positions are not both known [repeating steps 556, 558, and 560, until step 562 is true as depicted by FIG. 9, and described at page 22, line 18- page 23, line 3].

It is submitted that this Response to the Notification of Non-Compliant Appeal Brief fully addresses all issues raised in the Notification and that the Appeal Brief, supplemented with this Response, is now in proper order.

Respectfully submitted,

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